CCN 31645

Department of Energy

Idaho Operations Office
850 Energy Drive
Idaho Falls, Idaho 83401-1563

April 10, 2002

Mr. Robert E. Bullock, Hazardous Waste Permit Coordinator
C/o Teri Gregory
Idaho Department of Environmental Quality
1410 N. Hilton
Boise, Idaho 83706

SUBJECT: Submittal of Comments on the Public Participation Package and the HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center (EM-ER-02-054)

Dear Mr. Bullock:

Enclosed are the Department of Energy's comments, submitted for inclusion in the public record, on the Idaho Department of Environmental Quality's *HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center* released for public comment on March 13, 2002. We have provided specific comments defining technical and implementation difficulties. In addition, we explain how this plan deviates from the Federal Facility Agreement and Consent Order, the Final Record of Decision for Operable Unit 3-13, and the March 19, 2001 Memorandum of Agreement, all of which were signed by the Department of Environmental Quality.

If you have any questions regarding this transmittal, please contact me at (208) 526-1483.

Sincerely,

Teresa Perkins, Director
Environmental Technical Support Division

Enclosure

cc: B. Monson, IDHW, IDEQ, 1410 N. Hilton, Boise, ID 83706, (1)
D. Nygard, IDHW, DEQ, 1410 N. Hilton, Boise, ID 83706, (1)
J. Hunt, EPA Region X, 1200 Sixth Avenue, Seattle, WA 98101, (1)
W. Pierre, EPA Region X, 1200 Sixth Avenue, Seattle, WA 98101, (1)
T. Kluk, DOE-HQ, EM-441, (1)
R. Cummings, DOE-HQ, EM-441, (1)

Idaho National Engineering and Environmental Laboratory (INEEL) Comments on the Public Participation Package and *HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center*

April 10, 2002

General Comment

The United States Department of Energy (DOE) does not agree that the VES-SFE-20 Tank System (the "tank") is subject to closure under the Idaho Hazardous Waste Management Act/Resource Conservation and Recovery Act (HWMA/RCRA). DOE maintains that the tank is instead subject to remedial action under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Federal Facility Agreement and Consent Order (FFA/CO) signed in 1991 by the State of Idaho, United States Environmental Protection Agency (EPA), and DOE; the Record of Decision for Operable Unit 3-13 (the "ROD") signed by DOE, EPA and the Director of the Idaho Department of Environmental Quality ("IDEQ") in 1999; and the Memorandum of Agreement (the "MOA") deferring closure plan requirements in favor of CERCLA remedial action under authority of 40 CFR 265.110(d), signed by DOE and the Director of IDEQ in March 2001.

By submitting these and any other comments, DOE is not accepting IDEQ's deviation from the enforceable agreements reflected in the FFA/CO, the ROD, the MOA, nor does DOE waive any rights or defenses by submitting these comments to the proposed Closure Plan issued with the Public Notice. These comments are being submitted in the spirit of cooperation. Any modifications that IDEQ believes are appropriate to the current remedial action being planned under the ROD can be considered fully within the procedures of CERCLA, of a ROD amendment under the National Contingency Plan (40 CFR Part 300), and modification under the FFA/CO.

On March 13, 2002, the IDEQ issued a public notice and initiation of public comment upon a *HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho National Technology and Engineering Center* (the "Public Notice"). The IDEQ maintains that the VES-SFE-20 Tank System at the INEEL is subject to closure under HWMA/RCRA. In order to place the regulatory status of the VES-SFE-20 Tank System in the proper context, the following background summary is necessary:

- The tank system operated from 1957 through 1975 and received wastes from several processes associated with the CPP-603 spent fuel storage pools. These processes include fuel cask decontamination, the filter backwash system, and floor drains.
- The tank system was abandoned in 1976. Inlet and outlet lines to the tank were cut and capped. The tank is estimated to contain approximately 55 gallons of sludge and 400 gallons of liquid radioactive waste. In other words, no active management of the waste has occurred since HWMA and RCRA became effective law. The tank system is therefore not subject to permitting or closure requirements, but is instead a pre-

RCRA disposal that is an appropriate subject for remediation under the CERCLA process, fulfilling any corrective action requirements of RCRA per the agreement in the FFA/CO. (Per applicable EPA guidance, the appropriate mechanism for addressing this cleanup under RCRA authorities would be corrective action, not closure procedures. And remediation conducted under the FFA/CO expressly fulfills the corrective action requirements of RCRA.).

- On February 14, 1989, the abandoned tank was identified as a solid waste management unit (SWMU) under the Consent Order and Compliance Agreement (COCA).
- On December 9, 1991, the FFA/CO Action Plan also identified the "Abandoned Liquid Radioactive Waste Storage Tank CPP VES-SFE-20" as a SWMU subject to CERCLA remedial action.
- Following public comment on the Proposed Plan for Operable Unit 3-13 and review and approval by EPA's National Remedy Review Board, a remedy was selected by EPA, IDEQ, and DOE for VES-SFE-20, under the *Final Record of Decision (ROD), Idaho Nuclear Technology and Engineering Center, Operable Unit 3-13*. The ROD was signed on October 7, 1999 by all three agencies and provides for complete removal of the "abandoned tank, tank contents, tank vault, and components." Potentially contaminated soils will be remediated in accordance with the remedy for other contaminated CERCLA soils at INTEC.
- Section 12.2.7.1 of the ROD states, "The SFE-20 Hot Waste Tank System was previously closed and abandoned in 1976, and, therefore, was not used as a RCRA tank storage unit."
- In the Responsiveness Summary to the ROD, the agencies responded to comment number 282 by stating, "Since the tank was abandoned prior to the effective date of RCRA application to mixed waste, the SFE-20 Hot Waste Tank System is listed as a release site on the FFA/CO." The response also recognizes, "The tank contents are not known to have listed waste constituents, but there may be characteristic concentrations of other hazardous constituents."
- DOE has consistently and reasonably relied upon IDEQ's statements and agreements, and made allocation of funds and resources. It is now unreasonable for IDEQ to impose duplicative and inconsistent requirements outside of the agreed upon processes.
- Pursuant to the FFA/CO and the MOA, IDEQ is obligated to make any modifications to the tank remediation solely through the modification procedures of the FFA/CO and the ROD amendment procedures of the National Contingency Plan regulation which implements CERCLA (40 CFR Part 300).
- On August 10, 2000, IDEQ transmitted a letter from Brian R. Monson to Don Rasch of DOE-ID. The letter requested that DOE-ID submit a HWMA/RCRA closure plan for VES-SFE-20. Following an exchange of correspondence, the request resulted in the initiation of formal dispute resolution under the provisions of the FFA/CO. The dispute was resolved on March 19, 2001, through the issuance on February 23, 2001, by C. Stephen Allred, Director of IDEQ, of a Memorandum of Agreement (MOA), which was then signed on March 5, 2001, by Jerry Lyle for DOE-ID and again on March 19, 2001, by C. Stephen Allred on behalf of IDEQ. The MOA states, "DOE

will submit a HWMA/RCRA closure plan to DEQ . . . which shall incorporate by reference the OU 3-13 ROD and all parts thereof and which DEQ will consider as alternative requirements for closure of the SFE-20 tank system under 40 CFR 265.110(d)."

- DOE submitted the MOA closure plan on April 11, 2001, per the agreed upon conditions of the MOA.
- On June 12, 2001, IDEQ transmitted a letter from Brian R. Monson to Dave Wessman of DOE-ID. The letter contended that DOE-ID's submission had not fulfilled the terms of the MOA. Through the subsequent series of letters and phone calls, DOE-ID explained how the conditions of the MOA have been met, in full.

To date, DOE-ID has dutifully fulfilled its obligations relevant to VES-SFE-20 under the COCA, the FFA/CO, the OU 3-13 Record of Decision, and the MOA. The record demonstrates the VES-SFE-20 Tank System is not subject to HWMA/RCRA closure, which is also evidenced by the fact that these requirements are not identified as applicable or relevant and appropriate requirements (ARARs) under the ROD signed by IDEQ. Instead the ROD acknowledges that hazardous waste ARARs are only potentially applicable, after the tank, tank contents, tank vault, and components are removed from the ground as part of the CERCLA remedy. The record also clearly demonstrates that the IDEQ has been intimately involved in the selection of the CERCLA remedy for the tank system, and has agreed that the selected remedy is protective of human health and the environment. IDEQ's March 13, 2002, issuance of a draft HWMA/RCRA Closure Plan breaches the enforceable agreements reached under the OU 3-13 Record of Decision, and the MOA, and needlessly complicates the approved CERCLA remedy.

During the course of developing the DOE Closure Plan and path forward for the VES-SFE-20 tank, we have requested, either orally, or in our letters, the following information: 1) what information IDEQ has that shows that the VES-SFE-20 tank is being actively managed, 2) how IDEQ determined that the tank contains a hazardous waste, since a hazardous waste determination of the tank contents has not been performed, 3) how IDEQ determined that the Closure Plan submitted by DOE on April 11, 2001 did not meet the conditions of the March 19, 2001 Memorandum of Agreement, and 4) how does this Closure Plan, that was prepared by IDEQ, incorporate the conditions of the OU 3-13 ROD as noted in the March 19, 2001 Memorandum of Agreement. We have never received this information, thereby making it impossible for us to fully understand the position and actions of IDEQ.

Specific Comments

Page 1, Paragraph 1, from *Statement of Reasons for modifying the April 3, 2001 VES-SFE-20 Hot Waste Tank System Closure Plan at INTEC*: The *"Statement of Reasons"* states that, "DEQ determined that the VES-SFE-20 tank actively manages hazardous waste."

[Reference: October 19, 2000 letter, Donald N. Rasch to Brian R. Monson.] The contents of the tank will not be characterized, and a hazardous waste determination made, until implementation of the CERCLA remedial action for the tank. The tank was physically closed off and isolated from the rest of the system in 1976, thus disposing of its contents prior to the 1980 effective date of the RCRA regulations. It has never been used to actively manage hazardous wastes during the time period since RCRA or HWMA became enforceable.

EPA guidance letter #12919 (May 1, 1987) addressed the situation of a tank which had been sealed off in 1977 with residual hazardous waste in place. EPA said that

> The regulatory scheme of subtitle C [governing hazardous waste] is prospective, i.e. it applies to hazardous waste management which takes place after the effective date of the Subtitle C regulations [November 1980]. Inactive (either closed or abandoned) disposal facilities could be subject to RCRA §7003 [42 US Code §6973, Imminent Hazard] enforcement authorities and CERCLA. If the tank was closed in accordance with existing industry practices, it would be an inactive disposal facility not subject to RCRA Subtitle C regulations unless the waste in the tank is subsequently managed in a manner that would constitute treatment, storage, or disposal. (Emphasis added)

Clearly, IDEQ's determination is without basis in law and conflicts directly with long-standing EPA interpretations of these regulations. The VES-SFE-20 tank is not subject to RCRA permitting or closure requirements.

Page 1, Paragraph 1, from *Statement of Reasons for modifying the April 3, 2001 VES-SFE-20 Hot Waste Tank System Closure Plan at INTEC*: The *"Statement of Reasons"* states that, "DEQ and DOE signed a non-binding Memorandum of Agreement (MOA) dated March 20, 2001."

[Reference: Memorandum of Agreement, executed March 19, 2001 by C. Stephen Allred, Director, IDEQ.] The MOA states "This MOA is based on various communications between the Parties and their attorneys and is an enforceable agreement in settlement of anticipated litigation." (Emphasis added) This means the MOA is legally binding on both of the signatories, IDEQ and DOE-ID. The IDEQ statement is directly contradicted by the explicit text of the MOA. It was signed by IDEQ Director C. Stephen Allred on February 23, 2001, and transmitted to DOE-ID, where it was signed without change by Jerry L. Lyle, DOE-ID Assistant Manager, and then returned to IDEQ, where it was signed a second time by Mr. Allred on March 19, 2001.

The MOA states the intent of IDEQ to follow the procedure of 40 CFR 265.110(d), which allows replacement of the requirements of 40 CFR Part 265 Subpart G (Closure and Post-Closure) "with alternative requirements . . . set out in an enforceable document," which is in turn defined by 40 CFR 270.1(c)(7) to include "a CERCLA remedial action." The FFA/CO specifically provides that the FFA/CO itself (paragraph

10.1) and remedial action documents, such as the ROD, "are hereby fully incorporated herein and are fully enforceable" [paragraph 2.1(c)]. The MOA states that it "is an enforceable agreement in settlement of anticipated litigation" and recites the findings of fact which fulfill the prerequisites for replacement of closure requirements under 40 CFR 265.110(d), including the finding that "the SFE-20 tank system will be remediated under the methods and standards and requirements stated in the OU 3-13 ROD and that completion of the requirements in the ROD will protect human health and the environment, and will satisfy or be modified to satisfy the closure performance standards of 40 CFR 265.111(a) and (b). The ROD will be modified or expanded, as required, using the process outlined in the FFA/CO." The present proposal by IDEQ, in the Public Notice, to modify the process of remediating the tank through a process other than modification of the ROD through FFA/CO procedures, is therefore not in compliance with the express undertaking made by IDEQ in the MOA.

The only reference in the MOA to the word "binding" was an agreement that the settlement "shall not constitute binding precedent for any future actions at the site." (Emphasis added) This language does not refer to the MOA itself, which is a present, not a future, action. The present Public Notice and proposed Closure Plan by IDEQ would clearly repudiate and breach the agreement memorialized in the 2001 MOA.

Page 1, Paragraph 1, from *Statement of Reasons for modifying the April 3, 2001 VES-SFE-20 Hot Waste Tank System Closure Plan at INTEC*: The "*Statement of Reasons*" states that, "The MOA called for the DOE to submit a closure plan to IDEQ addressing closure of the VES-SFE-20 tank system."

[Reference: Memorandum of Agreement, March 19, 2001 and closure plan, April 11, 2001.] This is only one of the provisions in the MOA. The MOA also obligates IDEQ to accept a summary form of closure plan that defers to, and incorporates by reference, the Operable Unit 3-13 Record of Decision (ROD) governing cleanup of the VES-SFE-20 tank. In the MOA, the IDEQ Director makes the findings of fact that are prerequisites to deferring the normal closure process in favor of the CERCLA remedial action process, as is allowed by 40 CFR 265.110(d). Under that regulation, the only necessary contents of a closure plan are to "satisfy the closure performance standards of 40 CFR 265.111(a) and (b)," which was performed in the summary closure plan submitted April 11, 2001, in accordance with the MOA. Specifically, IDEQ committed to accept the OU 3-13 ROD "as alternative requirements for closure for the SFE-20 tank system under 40 CFR 265.110(d)," which allows CERCLA response actions to be substituted for the normal closure procedure, particularly when the unit to be closed is associated with CERCLA response action units. Thus, pursuant to the MOA, DOE submitted the abbreviated closure plan incorporating the OU 3-13 ROD, on April 11, 2001.

Page 1, Paragraph 1, from *Statement of Reasons for modifying the April 3, 2001 VES-SFE-20 Hot Waste Tank System Closure Plan at INTEC*: The "*Statement of Reasons*" states that, "On June 12, 2001 IDEQ issued a notice identifying deficiencies in the VES-SFE-20 Closure Plan. DOE was given 60 days to submit a revised plan. DOE's response

to that notice was received on October 1, 2001. Rather than address the noted deficiencies, DOE stated that the closure requirements agreed to in the MOA had been met."

[Reference: DOE-ID Letter to IDEQ, July 24, 2001.] The IDEQ statement is inaccurate in alleging that the DOE response was not made within the 60-day period it had specified. In fact, the response was sent on July 24, 2001, from Jerry Lyle, Assistant Manager, to Director Allred. It is correct that the DOE response pointed out that the IDEQ June 12, 2001 communication was at variance from the MOA. IDEQ demanded that the submitted closure plan contain all the information in a routine closure plan, without acknowledging that IDEQ had agreed in the MOA to accept, instead of the usual closure plan, the much more abbreviated one that is allowed under 40 CFR 265.110(d). That regulation was invoked in the MOA by IDEQ to allow substitution of CERCLA documents (in this case the OU 3-13 ROD) for the usual closure plan provisions, and the CERCLA documents pronounced acceptable by the MOA. In summary, the IDEQ demand for an expanded closure plan was at variance from IDEQ's agreement in the MOA, which was pointed out in DOE's July 24 letter.

The DOE July 24, 2001, letter pointed out that IDEQ had agreed in the MOA that any modifications necessary to meet any closure performance standards would be made using the FFA/CO procedure for modification of documents (specifically the OU 3-13 ROD). Modifications outside of the FFA/CO procedure are another noncompliance with the MOA.

This reason to modify the April 11, 2001, closure plan is also refuted by IDEQ's own "Fact Sheet" which accompanies the public participation package. Section C. of the fact sheet states:

> The Closure Plan was found to be inadequate and a notice of deficiency was sent to DOE on June 12, 2001. On July 24, 2001, DOE responded to the notice of deficiency contending that the closure plan was consistent with IDAPA 58.01.05.009 [40 CFR 265 subpart G]. (Emphasis added)

Page 1, Paragraph 1, from *Statement of Reasons for modifying the April 3, 2001 VES-SFE-20 Hot Waste Tank System Closure Plan at INTEC*: The "*Statement of Reasons*" states that, "DEQ determined that the April 2001 Closure Plan does not meet the intent of the MOA nor does it meet the requirements of IDAPA 58.01.05.009 [40 CFR Part 265 Subpart G]."

[Reference: MOA, March 19, 2001 and VES-SFE-20 Closure Plan submitted by DOE.] The closure plan submitted by DOE in fact meets all the requirements of the MOA, and by so doing, it satisfies IDAPA 58.01.05.009 [40 CFR Part 265 Subpart G] in accordance with the legal determinations made by Director Allred in the MOA that all the factual and legal prerequisites had been satisfied to allow deferral of Subpart G to the CERCLA OU 3-13 ROD. Furthermore, in the MOA Director Allred agreed that any modifications

necessary to the closure plan submitted by DOE would be made pursuant to the modification process of the FFA/CO. The MOA does not allow IDEQ to simply reject the submitted closure plan and demand a full Subpart G closure plan. That commitment was the essence of the compromise embodied in the MOA. DOE agreed to terminate the dispute it was pursuing against IDEQ under the FFA/CO, and future litigation on the same subject, in return for IDEQ's commitment to accept the OU 3-13 ROD as an alternative enforceable document satisfying IDAPA 58.01.05.009 [40 CFR 265.110(d)].

Page 1, Paragraph 1, from *Statement of Reasons for modifying the April 3, 2001 VES-SFE-20 Hot Waste Tank System Closure Plan at INTEC*: The "*Statement of Reasons*" states that, "DEQ is now exercising its option to modify the closure plan in a manner consistent with the closure plan requirements of . . . 40 CFR § 265.111 through § 265.115."

IDEQ did not reserve in the MOA any "option" to modify the closure plan submitted by DOE except through the FFA/CO process for modifying the OU 3-13 ROD. Instead, as it is authorized to do under 40 CFR § 265.110(d), IDEQ set aside the routine closure plan process (Subpart G) in favor of relying on the CERCLA process and reliance on the CERCLA OU 3-13 ROD to satisfy the goals of RCRA closure.

Resource allocations and budgeting for the current and subsequent fiscal years have been based upon IDEQ's MOA, as well as priorities mutually established under the FFA/CO. To now have to reorder those resources and funds, in order to satisfy the new immediate closure activity schedule proposed in the Public Notice and modified Closure Plan, would have direct negative consequences on the ability of DOE to meet its other obligations to perform timely remedial actions under the FFA/CO, in accordance with enforceable deadlines set by agreement with IDEQ and EPA. This failure would subject DOE to stipulated financial penalties under provisions of the FFA/CO. It may also lead to additional harm to human health or the environment from the delay of more urgent remedial actions.

Page 1, Paragraph 1, First Bullet, from *Statement of Reasons for modifying the April 3, 2001 VES-SFE-20 Hot Waste Tank System Closure Plan at INTEC*: The "*Statement of Reasons*" states that system boundaries of the tank were revised.

This is not correct. The system boundaries identified in the March 13, 2002, Closure Plan are the same system boundaries identified in the April 11, 2001, Closure Plan.

Page 1, Paragraph 1, Second Bullet, from *Statement of Reasons for modifying the April 3, 2001 VES-SFE-20 Hot Waste Tank System Closure Plan at INTEC*: The "*Statement of Reasons*" states that contaminants of concern were not addressed.

This is a process that is specifically being pursued through the CERCLA ROD, in accordance with the MOA. The April 11, 2001, Closure Plan submitted in accordance with the MOA provides for complete removal of the tank, tank contents, tank vault, and

components under the OU 3-13 ROD. The ROD also provides for subsequent management of wastes generated in accordance with ARARs (including HWMA/RCRA). Therefore, any and all potential contaminants of concern are fully addressed, including the known radionuclide contaminants that cannot be addressed through HWMA/RCRA closure.

Page 1, Paragraph 1, Third Bullet, from *Statement of Reasons for modifying the April 3, 2001 VES-SFE-20 Hot Waste Tank System Closure Plan at INTEC*: The "*Statement of Reasons*" states that a standard for clean closure was added.

The standards for conducting cleanup are incorporated in the CERCLA process, through the CERCLA Section 121 process involving identification (in cooperation with IDEQ and EPA) of applicable or relevant and appropriate requirements of other laws, such as HWMA/RCRA, and also in accordance with the MOA. The remedy in the OU 3-13 ROD calls for complete removal of the tank, tank contents, tank vault, and components. Potentially contaminated soils will be remediated in accordance with remedial action objectives for Group 3 soils under the OU 3-13 ROD.

Page 1, Paragraph 1, Fifth Bullet, from *Statement of Reasons for modifying the April 3, 2001 VES-SFE-20 Hot Waste Tank System Closure Plan at INTEC*: The "*Statement of Reasons*" states that, "The closure plan was modified to include the specific activities that will be completed under the CERCLA OU 3-13 ROD. These activities are tank and soil removal/excavation."

This directly contradicts the provisions of the MOA, to incorporate the ROD by reference into the closure plan, and to document changes to the remedy through the process outlined in the FFA/CO. This action would prevent any modification to the CERCLA ROD, except through the RCRA closure process, and is therefore arbitrary and capricious and not in accordance with applicable law.

Page 1, Paragraph 1, Sixth Bullet, from *Statement of Reasons for modifying the April 3, 2001 VES-SFE-20 Hot Waste Tank System Closure Plan at INTEC*: The "*Statement of Reasons*" states that a specific closure plan schedule and additional procedural requirements are added.

This is not only contrary to the MOA, it is also contrary to CERCLA §121(e)(1), which exempts CERCLA response actions from procedural requirements of other laws. If IDEQ desires to modify the schedule for performing the remediation of the Tank under the OU 3-13 ROD, it is obligated by both the FFA/CO and the MOA to propose those modifications for consideration by both EPA and DOE under the procedures of the FFA/CO.

Cover Page for *HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center*: As an editorial comment, the actual name of the INTEC facility is Idaho Nuclear Technology

and Engineering Center. The cover page inadvertently refers to the facility as Idaho National Technology and Engineering Center.

Section 1., ***HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center:*** The third paragraph of the section states that after the signing of the OU 3-13 ROD, "the state of Idaho was informed that the SFE-20 tank contains hazardous waste." The statement is incorrect. In the Responsiveness Summary to the ROD, the agencies responded to comment number 282 by stating, "Since the tank was abandoned prior to the effective date of RCRA application to mixed waste, the SFE-20 Hot Waste Tank System is listed as a release site on the FFA/CO." The response also recognizes, "The tank contents are not known to have listed waste constituents, but there may be characteristic concentrations of other hazardous constituents."

It appears that IDEQ is referring to an erroneous statement in the draft Characterization Work Plan, which states "it was determined that the tank did contain listed waste." The Closure Plan also makes reference to the draft Characterization Work Plan language in section 3.1. It should be noted that the erroneous statement was discussed with IDEQ at the September 12, 2000, quarterly meeting. The precise contents of the tank have not yet been fully determined. Although solvent usage may be associated with the wastestream previously managed by the VES-SFE-20 Tank System, the tank was abandoned in 1976, and the inlet lines cut and capped, prior to the effective date of RCRA. The statement was corrected in the Revised Characterization Work Plan for the VES-SFE-20 Hot Waste Tank at INTEC (DOE/ID-10747). This CERCLA document was submitted to IDEQ in August 2000, and states, "Upon generation of wastes during implementation of the CERCLA activity, a hazardous waste determination will be performed for each waste stream. The hazardous waste determination will be performed for each waste stream based upon sampling results, to identify RCRA characteristic numbers, and process knowledge to identify RCRA listed waste numbers." The record clearly shows that upon generation of the wastes during the CERCLA remedial action, the wastes may need to be managed under ARARs for hazardous waste, and this possibility was understood by all three agencies prior to signing the ROD.

Section 3. Paragraph 2, ***HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center:*** The Closure Plan states, "tank contents will be characterized . . . and taken to an appropriate treatment, storage, or disposal facility (TSDF)." This statement appears to preclude the ability to dispose of VES-SFE-20 tank contents at the INEEL CERCLA Disposal Facility (ICDF). Although the waste acceptance criteria (WAC) for the future ICDF is still under development with the agencies, VES-SFE-20 wastes should be allowed to be disposed as CERCLA waste in the ICDF, upon demonstration that the waste will meet the WAC. Generating waste recovered from the tank through a process conducted as proposed by the Closure Plan may prevent disposal of the waste in the ICDF, and may make timely disposal impossible due to lack of an off-site RCRA disposal facility that can accept the radionuclides in the waste. Prematurely eliminating the ICDF as a potential disposal site

not only reduces viable disposal options, but also may unnecessarily increase the costs to remediate VES-SFE-20, and divert needed funding from other INEEL environmental projects. The Closure Plan arbitrarily fails to identify the ICDF as a suitable disposal location for VES-SFE-20 remediation wastes upon demonstration that the wastes meet the ICDF WAC.

Since the ICDF is currently under construction, the plan also needs to recognize that the tank contents may need to undergo staging as a CERCLA waste, within the Area of Contamination (AOC) for Waste Area Group 3 (WAG 3), pending completion of the current ICDF construction. The waste may need to be staged until the ICDF becomes operational. Contrary to what the Closure Plan would require, the administrative timelines for storage of hazardous waste are not applicable for this CERCLA waste. Additionally, the Closure Plan fails to recognize that land disposal restrictions do not apply to CERCLA wastes managed within the AOC.

Section 3.1, Paragraph 3, ***HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center:*** The Closure Plan identifies the following hazardous contaminants of concern: cadmium, chromium, acetone, methylene chloride, 1,1,1-trichloroethane, tetrachloroethene, and formaldehyde. The plan further requires verification for "all other" underlying hazardous constituents (UHCs).

The expectations for "related underlying hazardous constituents" are unclear. In accordance with IDAPA 58.01.05.011 [40 CFR 268.48(a)], wastes which may require treatment for disposal need to meet universal treatment standards for UHCs. For those wastes generated by the remedial action for VES-SFE-20, which are managed in accordance with ARARs within the AOC, land disposal restrictions IDAPA 58.01.05.011 [40 CFR 268] do not apply.

Section 4., Second Paragraph, ***HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center:*** The closure performance standards for removal of the tank contents are unclear. The second bullet under closure performance standards indicates that "all tank system liquid and solid waste will be removed . . . ." The plan assumes that clean closure is ultimately achievable, following the CERCLA remedial action.

Given that the tank will be entirely removed pursuant to the OU 3-13 ROD, it is appropriate to allow a "residual" amount of material to remain in the tank, following removal of the tank contents. In addition, it is reasonable to allow the residual to be verified simply by removal of tank contents to the extent practicable via the removal method (i.e., the system no longer removes waste). While recognition of these facts might be inferred from Section 4.1.5. of the Closure Plan, it should also be noted in the closure performance standards. It should also be noted that Table 7-1 specifies complete removal of liquids and solids from the "VES-SFE-20 system." This implies that waste

will be removed from other components of the system (e.g., piping or the tank vault). This is unreasonable, since waste can only be removed from the tank itself.

Additionally, the plan specifies, "Removal and transporting procedures must be identified in the characterization report . . . ." However, pursuant to the FFA/CO, the OU 3-13 ROD, and the MOA, this information must be described in the remedial design/remedial action (RD/RA) work plan and a CERCLA waste management plan, not a characterization report supporting HWMA/RCRA closure.

Section 4., Second Paragraph, ***HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center:*** The second bullet under closure performance standards states that, "the tank, ancillary piping and equipment, and tank vault will be excavated and taken to an appropriate TSDF, under the OU 3-13 ROD agreement." The plan should be revised to make it clear that the ICDF may be considered "an appropriate disposal site, under the OU 3-13 ROD agreement."

Since the ICDF is currently under construction, the tank, ancillary piping and equipment, and tank vault may need to undergo staging as CERCLA waste, within the AOC for WAG 3. The waste may need to be staged until the ICDF becomes operational. The administrative timelines for storage of hazardous waste are not applicable for this waste. Additionally, land disposal restrictions do not apply to CERCLA wastes managed within the AOC.

Section 4., Second Paragraph, ***HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center:*** The closure performance standards specify the CERCLA actions undertaken pursuant to the OU 3-13 ROD must occur in a "timely manner." It is unclear what length of time IDEQ considers to be timely. Environmental Restoration activities at the INEEL are scheduled according to milestones established under the FFA/CO and remedial design/remedial action documentation, as funded by Congress. CERCLA actions that adhere to milestones established under this process should be considered timely and not subject to RCRA schedules and enforcement.

Section 4.1., ***HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center:*** The characterization requirements and closure methods are unreasonable and need to be revised to address criticality safety analysis for this radioactive waste. A preliminary criticality safety review suggests that the alternative liquid removal method in Section 4.1.3.1. may be acceptable without additional characterization. However, the fluidic pulse system alternative for liquids removal presented in Section 4.1.3., and the method proposed for solids removal in Sections 4.1.4. and 4.1.5., present the potential for a criticality safety concern.

Although the sludge is critically safe in its current configuration, mixing and mobilizing the sludge could present the potential for a criticality concern if sufficient fissile material is present in the sludge. Results from the one existing sample of sludge show very low amounts of uranium (1.91e-3 g/l). If this sample is a representative sample of the sludge, then the mixing and addition of water to the sludge does not present a criticality concern. At 1.91E-3 g/l, an entire tank of sludge would only yield 4.6 grams of uranium - well below the minimum critical mass. DOE procedures require additional assessment to ensure that criticality is not an issue. The preliminary criticality safety review suggests that additional data collection of the undisturbed solids is necessary prior to mixing the solids. The characterization and criticality safety issues need to be fully completed prior to determining the methods to remove the tank contents.

In addition, the Closure Plan, schedule, characterization, and removal methodology need to address the unique safety concerns associated with the system. The tank is located in a deep vault with entry restrictions. Access to the vault is by a wall-mounted ladder with an approximate 14-foot descent. The sump at the ladder bottom is reported to be radiologically contaminated. The vault area where the VES-SFE-20 tank is located must be accessed through a horizontal rectangular tunnel. A preliminary safety analysis indicates that an individual entering this confined space vault will encounter the following known and potential hazards:

- Horizontal tunnel contains loose asbestos contaminated materials (ACM)
- Potential immediately dangerous to life and health (IDLH atmosphere - lack of oxygen/unknowns)
- Radiological contamination, radiation, with radiological exposure potential
- Potential entrapment hazard (foot of entrant caught between tank and vault wall)
- Fall hazard upon entry/exit
- Due to space configuration, extremely difficult rescue if an individual were to become trapped or were unable to self-exit this confined space
- Potential heat stress due to clothing layers, respiratory protection (air supply likely)
- Difficulty removing sample(s).

Entering this space in its present state to obtain characterization data is strongly discouraged. If characterization data are necessary, it is recommended attempts be made to obtain samples from the exterior of this space to preclude personnel entry into the VES-SFE-20 vault. If attempts to obtain sample data from the exterior fail, excavation of the site is recommended to gain vault access from above to mitigate hazards. This will provide open access to the vault where the IDLH atmosphere can be removed, the entrapment hazard can be controlled, and personnel can be rescued directly from above.

Section 4.1.1., First Paragraph, ***HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center:*** The Closure Plan specifies that the Sample Characterization Report will identify TSDFs that will receive the waste and appropriate waste management procedures. Pursuant to the FFA/CO, the OU 3-13 ROD, and the MOA, this information should be described in the

remedial design/remedial action (RD/RA) documentation, and a CERCLA waste management plan, which is considered equal to the proposed characterization report supporting HWMA/RCRA closure and meets the coordination criteria of the MOA.

Section 4.1.1., Second Paragraph, ***HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center:*** The IDEQ proposed plan would require IDEQ approval of the Sample Characterization Report and states that IDEQ may require additional sampling. The plan ignores the need, in the event such a report is disapproved, to specify the contingency that the schedule will be automatically extended by 180 days to accommodate resampling, analysis, validation, and reporting.

Section 4.1.3., ***HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center:*** There are several references in the Liquid Waste Removal sections which indicate that the waste will be placed into "drums." In order to maintain flexibility for waste management, the references should state drums, *or other suitable containers*. Section 4.1.3.1 states, "The drums must be secondarily contained with a PIG® 4-Drum Poly Spill Containment Pallet, or Equivalent." The proposed plan unnecessarily specifies the PIG® product. The plan should simply state that "containers with free liquids will be secondarily contained." Since other containers may be utilized for management of the wastes, the instructions for drum filling are also unnecessary and should be deleted.

Section 4.1.4., ***HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center:*** For purposes of solids removal, and subsequent to removal of tank liquids, the plan specifies that approximately 150 gallons of water will be added to the tank to mobilize and mix the solid phase waste within the tank. In the event that a fluidic pulse system was utilized to remove the solids, for purposes of waste minimization it is advisable that a portion of the liquids already in the tank are left behind for use in mobilization and mixing of the solid phase. The proposed plan thus arbitrarily requires the generation of an additional 150 gallons of liquid waste.

Section 4.2.2., ***HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center:*** The plan states that, "following completion of soil remedial action, hazardous constituents of concern associated with the VES-SFE-20 tank system must be either verified not to be present, or below acceptable risk levels."

The contaminants of concern and cleanup criteria for potentially contaminated soils are determined through the OU 3-13 ROD and the CERCLA RD/RA process. The MOA specified that the closure would, "satisfy the closure performance standards of 40 CFR 265.111(a) and (b)," which apply to the tank, tank contents, tank vault, and components. The MOA excluded IDAPA 58.01.05.009 [40 CFR 265.111(c)] as inapplicable, which would otherwise address HWMA/RCRA closure performance standards for potentially

contaminated environmental media. Section 4.2.2. acknowledges that potential releases from the tank system likely occurred "prior to HWMA/RCRA applicability."

Section 7., *HWMA/RCRA Closure Plan for the VES-SFE-20 Hot Waste Tank System at the INEEL Idaho Nuclear Technology and Engineering Center:* The schedule for HWMA/RCRA closure of VES-SFE-20 is unrealistic. Conduct of operations for nuclear facilities require a high degree of rigor in developing work control documentation. The engineering designs and safety assessments to conduct these activities have not yet been completed. Significant time and resources are required to prepare a sampling and analysis plan, conduct the sampling, perform laboratory analyses, validate the laboratory data, and generate a characterization report. A criticality safety analysis has not yet been performed, yet the plan calls for vigorous mixing of the tank contents. Work at INEEL is performed in accordance with the principles of Integrated Safety Management. To ensure worker safety, a hazard analysis needs to be completed, and the principles of maintaining radiological exposure "As Low as Reasonably Achievable" (ALARA) need to be incorporated into any plan for removal of the tank contents.

These activities should be completed prior to characterization of the tank contents and selection of the method for removal of the liquids and solids. It will not be known if a suitable disposal facility is available until the tank contents are characterized. Lastly, the fluidic pulse tank mixing system that is owned by INEEL is currently deployed over the duration of the closure schedule to meet other regulatory commitments. Significant lead-time is necessary to design and procure a suitable system to meet the specifications of the Closure Plan.

The proposed plan schedule notes that the CERCLA RD/RA Work Plan is due to IDEQ on February 26, 2003. Yet, the removal of the liquids and solids from the tank is scheduled for completion 240 days from approval of the Closure Plan (presumably this will occur prior to February 26, 2003). This inconsistency deviates from the March 19, 2001 MOA and the incorporation by reference of the OU 3-13 ROD. A more realistic closure schedule should be developed through preparation of the draft RD/RA Work Plan. By following the FFA/CO process and completing the RD/RA Work Plan, the safety risks and design issues can be adequately addressed prior to implementing a remedy for the tank contents.